CLAIMS

1) Apparatus for loading vessels such as reactors, silos and similar ones with solid particles is characterized by the inclusion within a vertical body (1) a supplying device made up of a number of bell shaped enlarged tubes towards the bottom(2), co-axially arranged one within the other and a propulsion device (4), made up of gas jets (7) located at same level and in front of the bell shaped openings tubes (2) and facing the outside; and a distribution device made up of a number of rotating plates (3), rotating around the axis of the apparatus each of which is under the bell shaped opening tubes.

2) Apparatus according to claim 1, in which there are in addition straight pipes (6) and that can slide vertically independently, around the bell shaped tubes.

3) Apparatus according to claim 1, in which the distribution plates are each constituted of a ring specially fitted with brushes (30) or soft and flexible bristles.

4) Apparatus according to claims 1 and 3 in which the brushes or brushes' bristles (30) have varying radial dimensions in accordance with their position on the periphery.

5) Apparatus according to claim 1 in which the force of the blowing can be adjusted by regulating the gas pressure in the circular pipe.

6) Apparatus according to claim 1 in which the gas jets of propulsion device can be partially sealed and modulated by perforated rings (5) that are fixed on the rotating plates (3) of the distribution device.

7) Apparatus according to claim 1 is in which the vertical direction of the gas jets (7), of the propulsion device vary in accordance with their position along the gas circuit from which they get their gas feed.

8) Apparatus according to claim 1 in which the gas jets (7) of the propulsion device get their gas feed from ring like chamber formed around and within the bell shaped openings of the feeding device (M).

9) Apparatus according to claim 1 in which the propulsion of the gas jets (7) are brought together to form a laminar jet originating from an opening along the gas circuit.

10) Apparatus according to claim 1 including a corrector (9, 16, 11, 12, 13 & 14) that consists of a feeding, propulsion, and of distribution situated before the main body of the machine and that is limited to a given area of the periphery.